



# **2006 (7<sup>TH</sup>) ROUND SALMON APPLICATION FORMS**

## **ESTUARINE/NEARSHORE MARINE**

**HAMA HAMA RIVER ESTUARY RESTORATION  
PROJECT**

**18h**

**JUNE 19, 2006**

**FOR USE IN THE 2006 GRANT CYCLE ONLY**

## Application Authorization Memorandum

Each organization submitting a project must complete this form.

**TO:** Salmon Recovery Funding Board (SRFB)  
PO Box 40917  
Olympia, Washington 98504-0917

**THROUGH:** \_\_\_\_\_ **Hood Canal Coordinating Council** \_\_\_\_\_  
(lead entity name)

**FROM:** \_\_\_\_\_ **Hood Canal Salmon Enhancement Group** \_\_\_\_\_  
(applicant name)

Through the lead entity identified above, the SRFB is hereby requested to consider this application for financial assistance for the Salmon Recovery project(s) described below and to grant funding from such State and Federal sources as may be available. This application is prepared with knowledge of and in compliance with SRFB's policies and procedures. Further, we agree to cooperate with the SRFB by furnishing such additional information as may be necessary to execute a SRFB Project Agreement and to adhere to all appropriate state and federal statutes governing grant monies under the Project Agreement. We are aware that the grant, if approved, is paid on a reimbursement basis. We agree that all application materials, including photos, slides, site drawings, maps, etc., become the property of IAC/SRFB and may be used by IAC/SRFB for education, information, or other non-commercial purposes in publications, presentations or on the IAC/SRFB web site.

**Project Name(s):** \_\_\_\_\_ **Hama Hama River Estuary Restoration Project** \_\_\_\_\_

(Attach list

if necessary)

I/we certify that to the best of our knowledge, the data in this application is true and correct. In addition, I/we certify that the matching resources identified in the grant are committed to the above project. I/we acknowledge responsibility for supporting all non-cash commitments and donations should they not materialize.

**Authorized Rep:**  
(signature)



August 14, 2006

(date)

Printed Name and Title: \_\_\_\_\_ **Alan D. Adams, Board Member** \_\_\_\_\_

## 1. General Application Information

(ENTER ON PRISM TAB 1)

Project Name

Project Type (check one)

☒ **Restoration only** (Estuarine/Nearshore Marine)

☐ **Combined** (acquisition and restoration)

## 2. Applicant / Organization Information

(ENTER ON PRISM TAB 1 – SEARCH FOR ORGANIZATION)

Organization Name

Organization Type (check one)

☐ City/Town

☐ County

☐ Private Landowner

☐ Conservation District

☐ Native American Tribe

☐ Non-profit Organization

☒ RFEG

☐ Special Purpose District

☐ State Agency

Organization Address **Hood Canal Salmon Enhancement Group**

Address **22881 NE State Route 3**

City/Town **Belfair**

State, Zip **Washington 98528**

Telephone #**360 275-7575**

FAX #**360 275-0648**

Internet e-mail address **Eileen@hcseg.org** Web site URL **www.hcseg.org**

## 3. Project Contact Information

Complete one for each contact.

(ENTER ON PRISM TAB 1 – SEARCH FOR PERSON)

☐ Mr. ☐ Ms. Title **Executive Director**

First Name **Neil**

Last Name **Werner**

☒ Primary Contact OR ☐ Alternate Contact

Contact Mailing Address **PO Box 2169**

Address **22881 NE St. Rt. 3**

Work Telephone #**360 275-0373**

City/Town **Belfair**

FAX #**360 275-0648**

State, Zip **Washington 98528**

Internet e-mail address **Neil@hcseg.org**

#### 4.a. Goal and Objective and Measurements Estuarine/Nearshore Marine (Restoration projects only)

Select one goal and one objective that best fits your project  
and respond all to the measurements for that goal and objective.

(ENTER GOAL AND OBJECTIVE ON PRISM TAB 2; SAVE, THEN  
ENTER MEASUREMENT RESPONSES ON PRISM TAB 6)

<p><b>Goal:</b> The goal of the project is to connect isolated habitat to increase the range and distribution of salmon.</p> <p><b>Objective:</b> The objective of the project is to increase access to tidelands and shorelines.</p>	X
<p><b>Measurement:</b> Amount of estuarine/freshwater area treated? [Acres of estuary proposed for treatment and actually treated. Note: Include creation of estuarine wetlands.]</p>	<p>___46___ Acres</p>
<p><b>Measurement:</b> Length of instream habitat treated, except for bank stabilization? [This refers to meander miles of instream habitat treatments, except for bank stabilization treatments. Count actual stream length treated.]</p>	<p>___1___ Miles</p>
<p><b>Measurement:</b> Length of stream made accessible by the removal of barriers other than culverts? [The miles of stream proposed and actually opened to improved salmon production upstream of the barrier(s) other than culverts.]</p>	<p>_____ Miles</p>
<p><b>Measurement:</b> Length of stream section treated? [The number of miles of stream treated. Add one side only.]</p>	<p>_____ Miles</p>
<p><b>Measurement:</b> Length of streambank treated for stabilization? [The number of miles of streambank stabilization treatment. Add length treated on both sides when both sides are stabilized. Add one side when one side is treated.]</p>	<p>_____ Miles</p>
<p><b>Measurement:</b> Number of fish passage blockages removed or improved? [There may be more than one blockage per project. Report a count of all blockages that are proposed for removal or improvement and those that are actually removed or improved as part of this project.]</p>	<p>___4___ Number</p>

## 5. Short Description of Project

Describe project, what will be done, and what the anticipated benefits will be in 1500 characters or less.  
(ENTER ON PRISM TAB 2)

**NOTE:** Many audiences, including the SRFB, SRFB's Technical Review Panel, media, legislators, and the public who may inquire about your project use this description. Provide as clear, succinct and descriptive an overview of your project as possible – many will read these 1-2 paragraphs!

The description should state what is proposed. Identify the specific problems that will be addressed by this project, and why it is important to do at this time. Describe how, and to what extent, the project will protect, restore or address salmon habitat. Describe the general location, geographic scope, and targeted species/stock. This short description should be the summary of the detailed proposal set out under Evaluation Proposal, with particular emphasis on questions I-IV.

*The database limits this space to 1500 characters (including spaces); any excess text will be deleted.*

***The Hama Hama River was diked in the early 1900's cutting off normal flow to the North Fork and channelizing the South Fork essentially cutting of the estuary function to Hood Canal. Adult Chinook, Coho, Fall Chum, Pink, Steelhead, Cutthroat Trout and Summer Chum are all easy prey for marine mammals as they return to their spawning beds due to the channelization of the South Fork, in essence creating a gauntlet for adult salmonids to navigate. The migratory escape route for juveniles is no less peril less as scores of shore birds pick them off as they try to access the marine waters of Hood Canal.***

***This project will establish ~600 of anchored LWD on the South side of the River and create two openings on the North dike to allow both adult and juvenile passage into and from 45 acres of estuarine saltmarsh where access has been diverted.***

***The HSCEG will also improve access to an additional 2.5 acres of saltmarsh on the South side for migrating juvenile salmonid access by removing an antiquated culvert and increasing the channel into the saltmarsh.***

## 6. Summary of Funding Request and Match Contribution

Remember to update this section whenever changes  
are made to your cost estimates.  
(ENTER ON PRISM TAB 3)

### TOTAL PROJECT COST (A + B)

(Sponsor Match & SRFB Contribution)

\$ 359,000

### A. Sponsor Match Contribution (15% minimum is required for match)

Appropriation/Cash \$ \_\_\_\_\_

Bonds - Council \$ \_\_\_\_\_

Bonds - Voter \$ \_\_\_\_\_

Cash Donations \$ \_\_\_\_\_

Conservation Futures \$ \_\_\_\_\_

#### Donations

Donated Equipment \$ \_\_\_\_\_

Donated Labor \$ \_\_\_\_\_

Donated Land \$ \_\_\_\_\_

Donated Materials \$ \_\_\_\_\_

Donated Property Interest \$ \_\_\_\_\_

#### Force Account

Force Acct - Equipment \$ \_\_\_\_\_

Force Acct - Labor \$ \_\_\_\_\_

Force Acct - Material \$ \_\_\_\_\_

#### Grants\*

Grant - Federal \$ 109,000

Grant - Local \$ \_\_\_\_\_

Grant - Private \$ 100,000

Grant - State \$ \_\_\_\_\_

### Total Sponsor Match Contribution

\$ 209,000

15% Minimum Match Required  
of A. TOTAL PROJECT COST

### B. SRFB Contribution (grant request)

\$ 150,000

\$5,000 Minimum Request

**\*Note, be sure to identify the name and type of any matching grant in the Application Questionnaire Section.**

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## 8. Cost Estimate Estuarine/Nearshore Marine

ESTUARINE AND MARINE NEARSHORE includes those items that affect or enhance fish habitat within the shoreline riparian zone or below the mean high water mark of the water body. Items include work conducted in or adjacent to the intertidal area and in subtidal areas. Items may include beach restoration, bulkhead removal, dike breaching, plant establishment/removal/management, and tide channel reconstruction.

**Complete only items that apply to your project.**

**TOTAL COST must include the SRFB and Sponsor's Match Contribution.**

*Use only whole dollar amounts.*

**(ENTER ON PRISM TAB 5)**

Item	Unit	Qty.	Total Cost	Description Needed	Description (60 characters max.)
Beach nourishment	Cubic yds			Optional	
Bridge	Lump sum			Optional	
Culverts	Lump sum	2	96,100	Optional	
De-water/diversion dam	Each			Describe	
Derelict gear removal	# nets			Describe	
Dike breaching/removal	Linear ft			Optional	
Erosion control	Sq ft			Optional	
Excavation	Cubic yds	1250	16,300	Optional	
Fill	Cubic Yards	560	8,000	Optional	
Flushing/Passage Improvements	Lump sum			Describe	
Log Jams	Each	3	30,000	Optional	
Mobilization/demobilization	Lump sum		20,000	Optional	
Permits	Lump sum		4,000	Optional	
Plant removal/control	Acres			Optional	
Revegetation & Clean-up	Lump Sum		10,000	Optional	
Riparian plant materials (species)	Each			Describe	
Roughness Trees	Each	50	20,000	Optional	
Shoreline restoration	Linear ft			Describe	
Spawning Gravel/Bank Protection	Tons	350	14,000	Optional	
Site maintenance	Lump sum			Describe	
Tidal channel reconstruction	Lump sum			Optional	
Trees With Root Wads/Anchored	Each	25	35,000	Optional	
Traffic control	Lump sum			Describe	
Utility crossing	Lump sum			Describe	
Water management	Lump sum			Describe	
Woody debris placement	Each			Describe	
Work site restoration	Acres			Describe	
<b>Sales Tax</b>			24,644		
<b>Sub-Total</b>			278,084		
<b>Architecture, Engineering, &amp; Admin. (30% of Sub-Total)</b>			80,916		
<b>TOTAL COSTS</b>			359,000		

## 9a. Application Questionnaire

All applicants must answer the following questions.

(ENTER ON PRISM TAB 8)

### Cost Efficiencies

For any grants listed in the Summary of Funding Request and Match Contribution Section, are there any restrictions on the use of these grant funds? When and how long will the grant funds be available to this project? ***No restrictions other than for restoration activities associated with this project. Grant funds are available upon acceptance and then from two to five years for completion.***

Describe the type of donated labor (skilled and unskilled), donated equipment, and donated materials that will be used for this project, identified in the Summary of Funding Request and Match Contribution Section. ***Donated labor and material (logs) will be donated by the owners.***

### Land Ownership

What type of landowner currently owns the property? (Federal, Local, Private, State or Tribal.)  
***Private***

What is the current land use of the site, and its history? Describe past human uses and salmon habitat functions. ***There is no current use of the land. It has been estuarine saltmarsh cut off from the South fork of the Hama Hama River. The Current use of the tidelands is commercial shellfish aquaculture carried out by the landowners.***

### Worksite Location Data

What are the geographic coordinates of the work site(s) (in degrees, minutes and seconds)? [If you do not have them, you may leave this question blank.]

What is the township/range/section of the work site(s)? ***T24N R03W Section 27***

In what county(s) is the work site(s) located? In what city, if applicable? ***Mason County***

In what Water Resource Inventory Area(s) (WRIA) is the work site located? (Provide WRIA name and WRIA number.) ***WRIA 16***

Is the work site on a stream and/or other waterbody? If yes, name the stream and/or waterbody. If the stream is a tributary of a larger stream, also name the larger stream. If you know the river mile, list it here. ***All work on this project will be implemented on the Hama Hama River and it's subsequent estuary and Hood Canal.***

Is your work site(s) located within estuarine or saltwater habitat? If so, name it. How close is it to fresh water systems? Name any other estuary or habitat adjacent to this site. ***All work on this project will be implemented on the Hama Hama River and it's subsequent estuary and Hood Canal.***

Is the work site(s) located within a park, wildlife refuge, natural area preserve, or other recreation or habitat site? If yes, name the area. ***No***



### 9c. Application Questionnaire

Non-profit organizations must answer the following questions.

Is your organization registered as a non-profit with the Washington Secretary of State? If so, what is your Unified Business Identifier (UBI) number? ***Yes #601-285-471***

What date was your organization created? ***1990***

How long has your organization been involved in salmon and habitat conservation? ***16 Years***

### 10. Work Site Information

(ENTER ON PRISM TAB 9)

Driving Directions (provide directions that will enable staff to locate the project): ***The site is located at the mouth of the Hama Hama River directly East of Highway 101 when crossing the Hama Hama River Bridges. Property can be accessed via the Hama Hama Oyster Company Store and offices.***

Current Landowner(s) of the site (name and address). Remember to complete the Landowner Willingness Form. **Dave Robbins % Hama Hama Land Company, 35959 N Hwy 101, Lilliwaup, WA 98555**

## 11. Permits

Check the appropriate boxes to indicate required and/or anticipated permits.  
General permit information can be obtained at the Dept. of Ecology Permit Assistance Center  
1-800-917-0043 or on their Internet site  
<http://www.ecy.wa.gov/programs/sea/pac/index.html>.  
(ENTER ON PRISM TAB 10)

Permits	Comments Regarding Permit Status
<input type="checkbox"/> Aquatic Lands Use Authorization (Dept of Natural Resources)	
<input type="checkbox"/> Building Permit (City/County)	
<input type="checkbox"/> Clear & Grade Permit (City/County)	
<input checked="" type="checkbox"/> Cultural Assessment [Section 106] (CTED-OAHP)	
<input checked="" type="checkbox"/> Dredge/Fill Permit [Section 10/404 or 404] (US Army Corps of Engineers)	
<input checked="" type="checkbox"/> Endangered Species Act Compliance [ESA] (US Fish & Wildlife/NMFS)	
<input type="checkbox"/> Forest Practices Application [Forest & Fish] (Dept of Natural Resources)	
<input type="checkbox"/> Health Permit (Dept of Health/County)	
<input checked="" type="checkbox"/> Hydraulics Project Approval [HPA] (Dept of Fish & Wildlife)	
<input type="checkbox"/> NEPA (Federal Agencies)	
<input type="checkbox"/> SEPA (Local or State Agencies)	
<input type="checkbox"/> Shoreline Permit (City/County)	
<input checked="" type="checkbox"/> Water Quality Certification [Section 401] (County/Dept of Ecology)	
<input type="checkbox"/> Water Rights/Well Drilling Permit (Dept of Ecology)	
<input type="checkbox"/> Other Required Permits (identify)	
<input type="checkbox"/> None – No permits Required	

## 12. Salmonid Species Information

Identify one or more targeted Salmonid species (directly on-site, indirectly downstream or within the rearing/migration corridor) whose habitat conditions you are attempting to improve or protect. Select one Primary Species.  
(ENTER ON PRISM TAB 11)

Salmonid Species	Species Targeted (select as many as apply)	Primary Species (select only one)
Bull Trout	<input type="checkbox"/>	<input type="checkbox"/>
Chinook	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Chum	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Coho	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Cutthroat	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Pink	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Summer Chum	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Steelhead	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## 13a. Habitat Factors Addressed

Identify one or more Habitat Factors being addressed by this Project  
and select one Primary Factor.

For definitions of Habitat Factors, see Manual 18b, Appendix B.

(ENTER ON PRISM TAB 11)

Habitat Factors	Project Addresses (select as many as apply)	Primary Factor (select only one)
1. Biological Processes	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Channel Conditions	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Estuarine and Near-shore Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
4. Floodplain Conditions	<input type="checkbox"/>	<input type="checkbox"/>
5. Lake Habitat	<input type="checkbox"/>	<input type="checkbox"/>
6. Loss of Access to Spawning and Rearing Habitat	<input type="checkbox"/>	<input type="checkbox"/>
7. Riparian Conditions	<input type="checkbox"/>	<input type="checkbox"/>
8. Streambed Sediment Conditions	<input type="checkbox"/>	<input type="checkbox"/>
9. Water Quality	<input type="checkbox"/>	<input type="checkbox"/>
10. Water Quantity	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### 13b. Species/Habitat Factors Information Sources

For Species Information provide the source and indicate if the species listed are directly on-site at some point in their life stage (i.e. SaSI, WDFW Stream Catalog, Stream Survey/Field Observation, Limiting Factors Distribution Maps).

For Habitat Factors Information list the study/report and date identifying the habitat factors for your project (i.e. SaSI, limiting factors analysis, watershed analysis, other assessments or studies).

(ENTER ON PRISM TAB 11)

Study Name	Author	Date
Hood Canal/Water Resources Inventory Area (WRIA) 17 Limiting Factors Analysis	Washington State Conservation Commission	2002
Summer Chum Salmon Conservation Initiative	WDFW, Pt. No Pt. Treaty Tribes	2002
Salmon Habitat Recovery Strategy	HCCC	Version 03-2004
Hood Canal/Eastern Strait of Juan de Fuca Summer Chum Salmon Recovery Plan	HCCC	Current
Temporary residence by juvenile salmon in a restored estuarine habitat	Simenstad & R. M. Thom	1992
Juvenile residency in a marsh area in a marsh area of the Frazier River estuary.	D. A. Levy & T. J. Northcote	1982
Salmon & Steelhead Habitat Limiting Factors	G. Correa/WA Conservation Comm.	2003

### 14. Evaluation Proposal Estuarine/Nearshore Marine

Applicants must respond to the following items. The local citizen and technical advisory groups will use the evaluation proposal to evaluate your project. Applicants should contact their lead entity for additional information that may be required.

*Up to eight pages may be submitted for each project evaluation proposal.*

(SUBMIT INFORMATION VIA PRISM ATTACHMENT PROCESS OR ON PAPER)

#### I. BACKGROUND

Describe the fish resources, the current habitat conditions, and other current and historic conditions important to understanding this project. Be specific—avoid general statements. When possible, document your sources of information by citing specific studies and reports.

*Western Washington's Puget Sound is a very large, complex system of estuaries that support tremendous biological productivity and diversity. The plankton-rich waters, kelp forests, eelgrass beds, and salt marshes sustain a vast array of wildlife species. Puget Sound is home to at least 7,000 species of invertebrates, 200 species of fish, 100 species of sea birds, and 26 species of marine mammals (Seattle District USACE 2004; PSAT 2005). Although the Sound still supports the largest area of remaining estuarine wetlands on the west coast, 73 percent of its salt marsh habitat has been lost since the 1800's (PSAT 2004). Many species that depend on nearshore and marine habitats, such as salmon, forage fish, marine birds, and orcas, have declined in numbers.*

*Hood Canal is a natural, glacier-carved fjord more than 60-miles long, which forms the westernmost waterway of the Puget Sound basin. Hood Canal is one of the most scenic marine environments of Puget Sound; it was also once one of the most productive. However, habitat loss and low dissolved oxygen levels threaten Hood Canal's health. The Hood Canal Salmon Enhancement Group is attempting to increase the use of Estuaries by juvenile salmonids by reestablishing links and channels to the underutilized Hama Hama Estuary while creating a means of escape from the gauntlet that imposes a dire threat to their short term mortality.*

*The vital role estuaries play in summer chum salmon recovery is a basic tenant of salmon biology (Walters et al. 1978; Healy 1987; Levy and Northcote 1982). Properly functioning estuaries are recognized as a critical environment relating to the salmon lifecycle. The ability of estuaries to provide abundant food supply, wide salinity gradients, and diverse habitats is particularly important to anadromous fish in terms of rearing, feeding and osmoregulatory acclimatization (Macdonal et al 1987). The project area is located in the estuary of the Hama Hama River, one of the larger tributaries to Hood Canal, lying in north Mason County. The headwaters of the Hama Hama watershed are protected within Olympic National Park and Olympic National Forest, while the lower river reaches are mostly in private ownership. The Hama Hama estuary supports extensive mudflat, eelgrass, and emergent marsh habitats important to varied fish, wildlife, and shellfish populations. Numerous recent planning efforts have been made for the Hama Hama River and this is the first to actually take place and offers an opportunity many have long waited for. The Hood Canal Coordinating Council has designated the Hama Hama as one of eight Tier 1 watersheds in its Salmon Recovery Strategy (HCCC 2004).*

*The project area includes critical freshwater and estuarine habitat for two salmon stocks listed as threatened under the ESA, Puget Sound Chinook and Hood Canal Summer Chum. In addition, the river harbors a diversity of other fish species: fall chum, pink, coho, winter steelhead, rainbow, cutthroat, and sculpin populations. harboring at least eight distinct stocks.*

## II. PROJECT HYPOTHESIS

Provide a hypothesis of how current habitat conditions and habitat forming processes will be improved or affected by this project. Describe a logical basis for the project, including which processes the proposed action will affect, what type of effect the action is expected have on processes, what types of structural changes are expected to occur as a result, and ultimately how this will lead to the proposed outcome. State the nature, source, and extent of the altered conditions that this project will address or help understand. Address the primary causes of the problem, not just the symptoms. Document your sources of supporting information by citing specific studies, reports, or other documentation.

***Reconnecting isolated wetland habitats is a cost-effective and functionally effective approach for restoring wetland habitats, especially in coastal areas. This project proposes opening 45 acres of juvenile migratory habitat, providing LWD along ~600 feet of dike, engineering log jams on the south dike and restoring access to 2 acres of inaccessible saltmarsh. As a part of restoring the natural tidal channel network, an enhanced channel will be designed to provide natural passage. This project will address the disconnection of a significant estuarine marsh/ tidal channel area. The habitat functions (tidal inundation) conducive to forming natural estuarine marsh/ tidal channel conditions will once again be allowed to exist. We hypothesize that breaching the North dike of the Hama Hama River will offer protection from predators while providing access to estuary habitat.***

***Historic tidal channels still persist outside of the diked area and can be easily connected to the South Fork of the river by breaching in the multiple places while keeping the main South fork channel flow reasonably secure.***

***Furthermore current aerial photos overlaid on georectified maps of historic conditions (circa 1880s) indicates that the river had access to a much larger deltaic salt marsh complex and floodplain prior to the channelization and diking activities.***

***Breaching the existing North dikes will allow freshwater input and tidal prism to be dispersed throughout a much broader area by restoring detritic channels and saltmarsh complexes which are important as critical habitat to a variety of aquatic and terrestrial critters.***

***The Hood Canal Salmon Enhancement Group has implemented or participated in numerous habitat assessment, documentation, enhancement, restoration and/or preservation efforts in the Hood Canal Watershed, including wetland complexes, re-connecting oxbow ponds. The Hood Canal Salmon Enhancement Group has made efforts of coordinating other river/basin-wide reach assessments, outside the area of the current application. In addition, the following documents have been used to support this project.***

***Enhance marsh habitat connectivity in lower Hood Canal for wildlife and fish resources dependent on this ecosystem.***

### III. PROJECT GOALS AND OBJECTIVES

List the project's goals and objectives. Objectives are statements of specific outcomes that typically can be measured or quantified over time. Objectives are more specific than goals (visions of the desired future condition) and less specific than tasks (the specific steps that would be taken to accomplish each of the objectives). For example, the objectives of a nearshore project might be to increase tidal flushing, allow fish access and use, restore floodplain functions, sediment transport, dissipation, and water storage. Explain how achieving the objectives will address and help solve the problem identified in II above.

Describe how the project will benefit to salmon and provide significant ecological benefits. ***This project is located within a migratory corridor utilized by multiple salmon stocks. ESA listed Chinook and Summer Chum are considered most dependent on this area for long term sustainability. Historical evidence shows that ESA listed Summer Chum spawning extended into a significant portion of the floodplain from the river mouth upstream. This project will also benefit SASSI depressed Coho (spawning, incubation and rearing), Winter Steelhead (spawning, incubation and rearing), and sea run cutthroat (spawning, incubation and rearing). Extensive research throughout the northwest has correlated survival rates of chinook and chum juveniles with the ability of estuarine and sub estuarine habitats to provide feeding, rearing, and broad freshwater/saltwater transition zones (Groot and Margolis 1994). Benefits of this project will be permanent as the purpose is primarily to remove human caused structures and allow natural processes to form habitat.***

Describe how the project actions incorporate habitat important to key biota, i.e., the project should address sustainable habitats critical to the targeted species. ***The objective of this project is to open historic habitat for juvenile salmonids by breaching dikes and providing LWD in the system which will improve adult and juvenile salmonid migration, while the goal is to restore natural habitat forming processes and habitats that provide critical functions to salmon.***

***It has been shown through the evaluation of historical coastal maps, that the habitat in this area has been gradually altered by the land changes promoted by human development. The breaching of the dikes and restoration of LWD within the system will reestablish the connectivity to the estuary and add complexity to the system.***

***Salmon Recovery Plans for both Summer Chum and Chinook salmon note the importance of these estuarine complexes to the continued viability of local populations.***

### IV. PROJECT APPROACH

Briefly describe the geographic setting of the project (main stem, estuary, shoreline, marine, etc.) and the life cycle stage(s) affected.

***The site of this project is the mouth of the Hama Hama River which was diked and channelized basically cutting off the flows of the North Fork except under high tide events or storm events. The tidelands have been and still are a very***

***productive commercial shellfish harvesting operation. High flows of fresh water onto these tidelands can have an adverse affect on the industry. Therefore changes in the flows of the South fork into the main estuary must be designed for minimal effect on the shellfish while maximizing the benefit for juvenile salmonid utilization, especially for federally listed Summer Chum and Chinook.***

Describe the landscape context of the project, i.e., scale and size of the project, connectivity in relation to surrounding habitats, and complexity of existing vs. restored habitats.

***Although the Sound still supports the largest area of remaining estuarine wetlands on the west coast, 73 percent of its salt marsh habitat has been lost since the 1800's (PSAT 2004). Many species that depend on nearshore and marine habitats, such as salmon, forage fish, marine birds, and orcas, have declined in numbers. Hood Canal is a natural, glacier-carved fjord more than 60-miles long, which forms the westernmost waterway of the Puget Sound basin. Hood Canal is one of the most scenic marine environments of Puget Sound; it was also once one of the most productive. However, habitat loss and low dissolved oxygen levels threaten Hood Canal's health. The Hood Canal Salmon Enhancement Group is attempting to increase the use of Estuaries by juvenile salmonids by reestablishing links and channels to the underutilized Hama Hama Estuary while creating a means of escape from the gauntlet that imposes a dire threat to their short term mortality. Extensive work is being done on numerous River Systems in Hood Canal. The Hama Hama remains in private ownership and has been guided in environmental stewardship by the Robbins family. Until now we have not been invited to partner with the Robbins, but are taking this opportunity to work with them to accomplish the goals they have for the Hama Hama River and those we all have for the entire Hood Canal Ecosystem.***

List the individuals and methods used to identify the project and its location.

**David Robbins, Margie Shirato (WDFW), Bob Barnard (WDFW), Neil Werner (HCSEG), Rich Carlson (USFWS).**

Describe the consequences of not conducting this project at this time. For acquisition projects, also describe the current level and imminence of risk to habitat. Describe the project design and how it will be implemented.

***This project, like many others, if not done now, will prolong the restoration of critical estuarine functions and continue to limit salmon productivity within the watershed. Design is being implemented through on site surveys, aerial photographs and lidar imagery by qualified environmental engineers with experience in this arena. The sooner we begin to restore our estuaries and nearshore environments throughout Hood Canal, the sooner we will see salmon recovery. The importance of estuaries to salmonids has been well stated. There are no landowner concerns nor are there any legal obligations associated with this project. We currently have an extremely willing landowner which provides an impetus to move quickly. The project design is***



***being developed by the Hood Canal Salmon Enhancement Group with collaboration with the WDFW, local Tribes and the HCCC.***

Explain how the project's cost estimates were determined.

***The projects cost estimates were determined through a professional environmental engineering service with a long history in environmental projects and methods.***

Describe other approaches and opportunities that were considered to achieve the project's objectives.

***Other approaches were discussed at length with the WDFW and the land owners with a consensus of how to proceed.***

If the project includes an acquisition element, then briefly describe the extent to which habitat to be acquired is currently fully functioning and/or needs restoration; the timeframe in which responses or improvements in habitat functioning are expected; and the continuity of the proposed acquisition with other protected or functioning habitat in the reach. ***N/A***

Identify the staff, consultants, and subcontractors that will be designing and implementing the project, including their names, qualifications, roles and responsibilities. If not yet known, describe the selection process.

***Lead Engineer – Pat McCullough, ESA Inc. Over 60 environmental projects completed in Hood Canal Watershed.***

***Randy Johnson – WDFW***

***Bob Barnard - WDFW***

***Rich Carlson – USFWS***

***Margie Shirato – WDFW***

***Richard Brocksmith - HCCC***

***Others selected by experience in nearshore and estuary issues and familiar with Hood Canal Watershed which at this time is yet to be completed.***

***Contractors for this project will be selected from bids received from local contractors on the HCSEG's small contractor work list through a sealed bid process.***

List project partners. When appropriate, include a letter from each participating partner briefly outlining its role and contribution to the project. (See Section 15 for a sample format.)

***The Robbins family, NFWF, USFWS***

List all landowner names. Include a signed form from each landowner acknowledging their property is proposed for SRFB funding consideration. (See Section 16 for a sample format.)

***All property belongs to Robbins family.***

Describe how the project will contribute to our understanding of the ecosystem or how to restore it. ***There are many estuaries on Hood Canal which have been similarly***

***impacted by development such as this. Lessons will be learned of the effects of removing long-existing impacts which over time have increased dramatically. There will be more reliability in predicting the effects of removals on more land-sensitive river systems.***

***Through development of and by the project partners, this will lead to the identification of the best alternatives and opportunities for success that can then be utilized in future such projects.***

***This is a very certain project in allowing fairly immediate access to areas where obstacles have prevented salmonid migration for many decades. All project activities will be timed to minimize disturbance to salmonids. The USFWS and WDFW have been consulted for comparisons and their input.***

Provide the performance measures associated with the project. Every recovery action must have explicit performance measures that directly relate to the goals of the project, i.e., growth rates or survival of salmon, sedimentation rates, change in recruitment of large wood, and change in the amount of specific habitat type(s).

***Performance measures in this project revolve around several habitat factors known to correlate with juvenile salmon survival. By increasing nearshore habitat more juveniles will survive to return as adults. The evaluation regarding salmon productivity will begin in 3 years after completion of adult spawner counts. The HCSEG is well trained to do so and will monitor with other partners into the future. Immediate monitoring will include measuring changes in salinity within newly opened channels, salmon usage of newly opened channels, vegetation characteristics, and estuarine surface area. We will also monitor the effectiveness of LWD anchored into the existing dike to provide bank softening, salmonid protection and habitat.***

Describe the long-term stewardship and maintenance obligations of the project. Projects should be consistent with habitat forming processes in the watershed, requiring reduced up-keep and long-term maintenance over time.

***The HCSEG has developed a long range monitoring plan which includes estuary evaluation and monitoring. We also include long term maintenance with all of our programs and have funding in place to deal with unexpected problems. We have returned on request every time an issue has come forward about one of our projects. During project construction and after, the HCSEG will monitor the site for construction integrity and HPA compliance, any adaptive measures will be taken to ensure site stability. Upon completion of the project, the site will be monitored for fish and wildlife use. The HCSEG & Long Live the Kings staff, interns and volunteers will conduct spawner surveys on the Hama Hama River. Photo documentation of the physical evolution of the site prior to and following restoration will be maintained by local biologists, and the site will be monitored into the near future for***

***effectiveness, however the site should be self-sustaining after restoring the physical process.***

Each project should include an adaptive management type of approach that provides some level of contingency planning. Explain how you will address these constraints.

***The HCSEG has a contingency fund built into our budgets to deal with unforeseen problems or needs. As with all environmental projects, there is always something that comes up that was not expected. We start each project with the realization that this might happen and then prepare for the situation and respond accordingly. We have never been caught in a situation that could not be corrected to everyone's satisfaction.***

## **V. TASKS AND TIME SCHEDULE**

List and describe the major tasks and time schedule you will use to complete the project.

***Preliminary engineering and design is complete. Permitting will begin by the December 2006 and construction should be implemented by July 15 2007 with completion prior to October 15 2007.***

## **VII. CONSTRAINTS AND UNCERTAINTIES**

Describe the relationships between uncertainty, risk, expected ecological benefits, and potential learning that may affect successful completion of the project. Not everything will go as expected.

***This is a very interesting project which will have fairly immediate access to areas where obstacles have prevented salmonid migration for many decades. All project activities will be timed to minimize disturbance to salmonids. The USFWS and WDFW have been consulted for comparisons and their input.***

***An uncertainty does exist in the actual site of dike breaching. It may be desirable to actively modify the restoration work to account for the need of different widths/openings in the dike system in order to see what opening acts as the catalyst for nature to work at optimum levels.***

***There is not a project we are involved with that adaptive management does not come into play. One can never tell exactly what issues might arise but we try to bring as many people as possible into the equation so as to limit this liability.***

Describe the costs of the project relative to other factors. Project costs relative to such factors as risk, uncertainty and the expected benefits should be considered. Maintenance, contingency, adaptive management, and monitoring costs should all be considered in the overall cost of any protection or restoration project.

***As explained in previous questions, the HCSEG has a contingency fund built into our budget to deal with unforeseen problems or needs. As with all environmental projects, there is always something that could come up that***

*was not expected. We start each project with the realization that this might happen and then prepare for the situation and respond accordingly. We have never been caught in a situation that could not be corrected to everyone's satisfaction. The future maintenance of the project will be the responsibility of the property owner with maintenance assistance from HCSEG. The HCSEG will continue the long term monitoring and evaluation of the site.*

## 15. Project Partner Contribution Form

**Project Partner: Robbins Family**

**Hama Hama Land Co, 35959 N Hwy 101, Lilliwaup, WA 98555**

Partner Address:

### Contact Person

☒ Mr.      ☐ Ms.      Title

First Name: Dave      Last Name: Robbins

Contact Mailing Address: 35959 N Hwy 101, Lilliwaup, WA 98555

Contact E-Mail Address:

**Description of contribution to project: Donated labor & Logs**

**Estimated value to be contributed: \$\_\_100,000\_\_\_\_\_**

\_\_\_\_\_  
Partner's signature

\_\_\_\_\_  
Date

## 15. Project Partner Contribution Form

**Project Partner: NFWF**

Partner Address: 806 SW Broadway, Suite 750, Portland, OR 97205

**Contact Person**

☐ Mr.      ☒ Ms.      Title

First Name: Krystyna

Last Name: Wolniakowski

Contact Mailing Address: 806 SW Broadway, Suite 750, Portland, OR 97205

Contact E-Mail Address: [Wolniakowski@nfwf.org](mailto:Wolniakowski@nfwf.org)

**Description of contribution to project: Cash**

**Estimated value to be contributed: \$ \_100,000\_\_\_\_\_**

\_\_\_\_\_  
**Partner's signature**

\_\_\_\_\_  
**Date**

## 15. Project Partner Contribution Form

**Project Partner: USFWS/HCSEG**

Partner Address: 510 Desmond Dr SE, Suite 102, Lacey, WA 98503-1263

**Contact Person**

☐ Mr.      ☐ Ms.      Title **Executive Director**

First Name: **Neil**      Last Name: **Werner**

Contact Mailing Address: **22881 NE St Rt 3, Belfair, WA 98528**

Contact E-Mail Address: [Neil@hcseg.org](mailto:Neil@hcseg.org)

**Description of contribution to project: Cash**

**Estimated value to be contributed: \$\_\_9,000\_\_\_\_\_**

\_\_\_\_\_  
**Partner's signature**

\_\_\_\_\_  
**Date**

## 16. Landowner Willingness Form

### Landowner Information:

**Name of Landowner:** Robbins Family

**Landowner Contact Information:**

☒ Mr.      ☐ Ms.      Title

First Name: Dave      Last Name: Robbins

Contact Mailing Address: 35959 N Hwy 101, Lilliwaup, WA 98555

Contact E-Mail Address:

**Property Address or Location:**

I certify that \_\_\_\_\_ is the legal owner of property described in this grant  
(landowner or organization)

application to the Salmon Recovery Funding Board (SRFB). I am aware the project is being proposed on said property. My signature authorizes the applicant listed below to seek funding for project implementation, however, does not represent authorization of project implementation.

\_\_\_\_\_  
**Landowner Signature**

\_\_\_\_\_  
**Date**

### Project Applicant Information

**Project Name:** Hood Canal Salmon Enhancement Group

**Project Applicant Contact Information:**

☐ Mr.      ☐ Ms.      Title **Executive Director**

First Name: **Neil**      Last Name: **Werner**

Contact Mailing Address: **PO Box 2169 Belfair, Washington 98528**

Contact E-Mail Address: **Neil@hcseg.org**

Lead Entity Organization: **Hood Canal Coordinating Council**